



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,090	09/19/2003	Robert C. Lam	02074/02091	8977
43215	7590	10/14/2005	EXAMINER	
BORGWARNER INC. PATENT DEPARTMENT 3850 HAMLIN ROAD AUBURN HILLS, MI 48326-2872			SPERTY, ARDEN B	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/666,090

Applicant(s)

LAM ET AL.

Examiner

Arden B. Sperty

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-28 is/are pending in the application.  
4a) Of the above claim(s) 18-27 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4, 6-17, 28 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

**FINAL OFFICE ACTION**

1. Applicant's comments and amendments, submitted 8/04/05, have been entered and carefully considered.
2. The objection to the specification is withdrawn, due to the submitted corrections.

***Claim Rejections - 35 USC § 112***

3. In the previous office action, claims 4, 5, and 13 were rejected under 35 USC 112, second paragraph, because it was unclear what Applicant intended as the difference between Celite, silica, and diatomaceous earth. The current amendment has removed Celite from the claims. Applicant further states that diatomaceous earth and silica, although similar, are not the same component. Applicant has not stated what the alleged difference is between the two components. The examiner remains of the position that they are the same thing.

***Claim Rejections - 35 USC § 103***

4. Claims 1-17 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lam, US Patent 6001750, and further in view of US Patent 6630416 to Lam.
5. The Lam reference ('750) teaches a fibrous base material comprising a porous primary fibrous base material layer and a secondary layer comprising carbon particles, the base material being impregnated with a resin (Abstract). The friction modifying particles have a size of from about 0.5 to about 80 $\mu$ m, are present in an amount of from about 0.2 to 20% by weight, and cover about 3 to 90% of the surface area of the

Art Unit: 1771

primary layer (col. 10, line 65- col. 11, line 15). The base material is impregnated with a resin in the amount of about 5 to about 80% by weight, and the resins include those claimed by Applicant (col. 5, lines 50+).

6. As stated in the previous office action,

While the '750 reference teaches a secondary layer comprising carbon particles, the reference is silent with respect to the secondary layer further comprising silica particles. The '416 reference teaches a similar base material, which has included in the secondary layer an amount of silica particles to provide an improved friction surface ('416 reference, col. 9, lines 20-35). It would have been obvious to one of ordinary skill in the art to incorporate the silica particles in the secondary layer taught by the '750 reference, motivated by the desire to provide the friction material with a smooth friction surface, providing a smooth shift feel and minimizing shudder. Since the same materials are used by Applicant as are used by each of the prior art references, the shape limitations required of Applicant's claimed silica particles are seen to be inherently met. While the '416 reference does not express the amount of silica and carbon particles in relation to each other, the same weight percents of silica and carbon particles, relative to the weight of the base material, are used in the prior art as are used in the presently claimed invention. In the alternative, it would have been obvious to one of ordinary skill to optimize the amount of each material. Absent a showing of unexpected results with the claimed amounts, no difference is seen between the present invention and that which is taught or obvious over the prior art.

### ***Response to Arguments***

7. The previously stated 35 USC 102(b)/103(a) rejection of claims 1-3, 7-8, 10, 12, 14, and 17 as anticipated by or obvious in view of US Patent 6001750 to Lam, is withdrawn per Applicant's argument that the carbon particles employed by the prior art are not geometrically symmetrical shaped. However, the claims remain rejected under 35 USC 103(a) as stated above and in the previous office action.

8. Applicant further argues against the 35 USC 103(a) rejection in view of US Patent 6001750 in view of US Patent 6630416. At the bottom of page 11 Applicant states that the Lam '416 does not suggest the use of geometrically symmetrically shaped friction particles. While it is true that the "416 reference does not describe the silica, diatomaceous earth, or Celite particles as "geometrically symmetrically shaped," it is presumed that since the same material is used, such as the registered Celite brand material, the geometrically symmetric shape is intrinsic. It appears that Applicant is merely claiming the shape of the particles used in the prior art. In other words, the shape was present in the prior art since the same materials are used, just not described. If there is a difference between the particles presently used and the particles used by the same inventor in the prior art, it is not apparent. Applicant must show that the particles are different. Since Applicant has not shown the particles to be different, it does not appear that a patentably distinct invention is claimed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

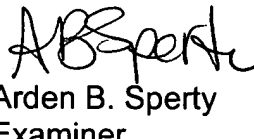
Art Unit: 1771

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

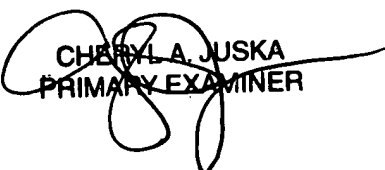
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Arden B. Sperty  
Examiner  
Art Unit 1771

October 6, 2005

  
CHERYL A. JUSKA  
PRIMARY EXAMINER